APPLN. FILING DATE: DECEMBER 12, 2003
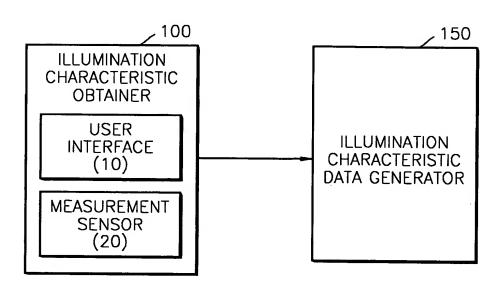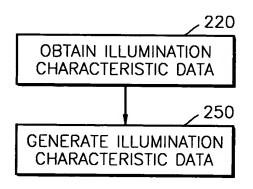**TITLE:** METHOD AND APPARATUS FOR GENERATING ILLUMINATION
CHARACTERISTIC DATA AROUND IMAGE DISPLAY DEVICE, AND
METHOD AND APPARATUS FOR COMPENSATING FOR COLOR
VARIATION USING THE METHOD AND APPARATUS
INVENTOR(S): YOUNG-SIK HUH ET AL
ATTORNEY DOCKET NO.: 030681-608 SHEET 1 OF 5

FIG. 1


```
        ,100                                    ,150
┌─────────────────────┐           ┌─────────────────────┐
│    ILLUMINATION      │           │                     │
│   CHARACTERISTIC     │           │    ILLUMINATION     │
│      OBTAINER        │           │   CHARACTERISTIC    │
│ ┌─────────────────┐  │           │  DATA GENERATOR     │
│ │      USER       │  │──────────▶│                     │
│ │   INTERFACE     │  │           │                     │
│ │      (10)       │  │           │                     │
│ └─────────────────┘  │           │                     │
│ ┌─────────────────┐  │           │                     │
│ │   MEASUREMENT   │  │           │                     │
│ │     SENSOR      │  │           │                     │
│ │      (20)       │  │           │                     │
│ └─────────────────┘  │           │                     │
└─────────────────────┘           └─────────────────────┘
```

FIG. 2


```
              ,220
┌─────────────────────────┐
│  OBTAIN ILLUMINATION     │
│  CHARACTERISTIC DATA     │
└─────────────────────────┘
             │
             ▼      ,250
┌─────────────────────────┐
│ GENERATE ILLUMINATION    │
│  CHARACTERISTIC DATA     │
└─────────────────────────┘
```

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INVENTOR(S): YOUNG-SIK HUH ET AL
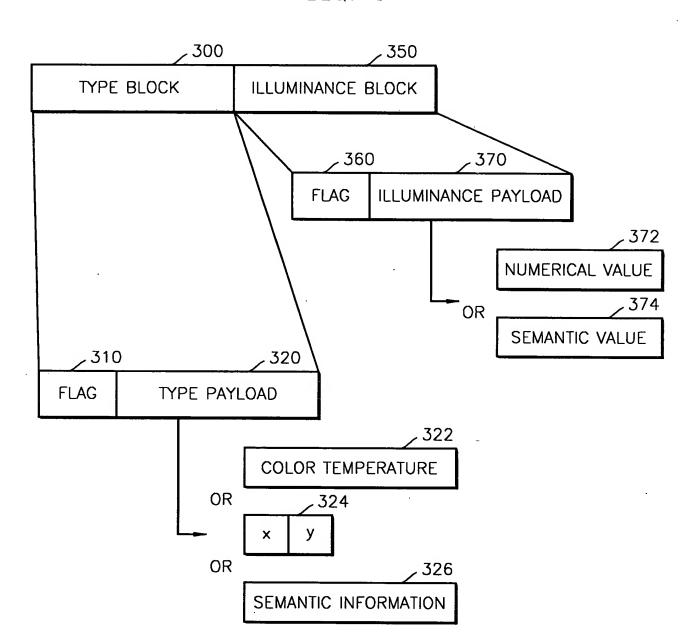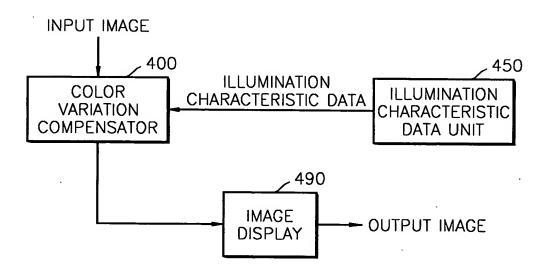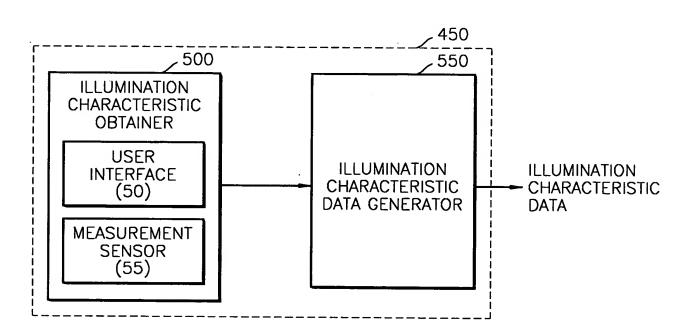ATTORNEY DOCKET NO.: 030681-608 SHEET 2 OF 5

FIG. 3

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TITLE: METHOD AND APPARATUS FOR GENERATING ILLUMINATION
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FIG. 4

INPUT IMAGE

COLOR VARIATION COMPENSATOR /400

ILLUMINATION CHARACTERISTIC DATA

ILLUMINATION CHARACTERISTIC DATA UNIT /450

IMAGE DISPLAY /490 → OUTPUT IMAGE

FIG. 5

/450

ILLUMINATION CHARACTERISTIC OBTAINER /500

USER INTERFACE (50)

MEASUREMENT SENSOR (55)

ILLUMINATION CHARACTERISTIC DATA GENERATOR /550

ILLUMINATION CHARACTERISTIC DATA

Appln. Filing Date: December 12, 2003
Title: Method and Apparatus for Generating Illumination Characteristic Data Around Image Display Device, and Method and Apparatus for Compensating for Color Variation Using the Method and Apparatus
Inventor(s): Young-Sik Huh et al
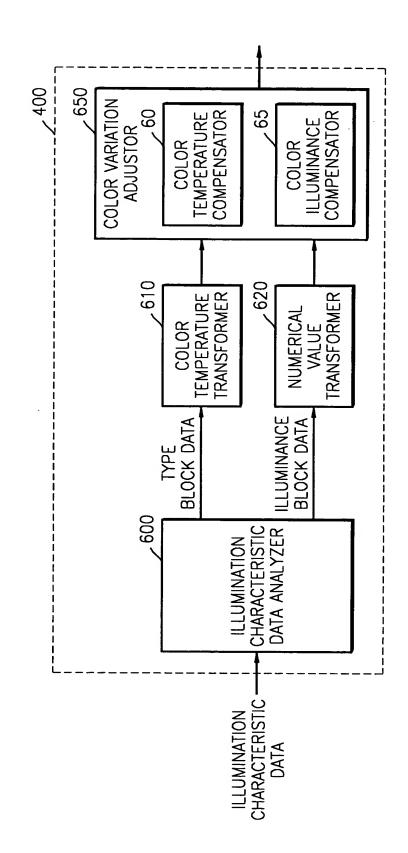**Attorney Docket No.:** 030681-608 Sheet 4 of 5

FIG. 6

APPLN. FILING DATE: DECEMBER 12, 2003
TITLE: METHOD AND APPARATUS FOR GENERATING ILLUMINATION
CHARACTERISTIC DATA AROUND IMAGE DISPLAY DEVICE, AND
METHOD AND APPARATUS FOR COMPENSATING FOR COLOR
VARIATION USING THE METHOD AND APPARATUS
INVENTOR(S): YOUNG-SIK HUH ET AL
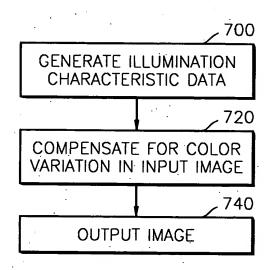ATTORNEY DOCKET NO.: 030681-608   SHEET 5 OF 5

FIG. 7

```
                                           ┌─ 700
          ┌───────────────────────────────┐
          │   GENERATE ILLUMINATION        │
          │   CHARACTERISTIC DATA          │
          └───────────────────────────────┘
                         │
                         ▼                 ┌─ 720
          ┌───────────────────────────────┐
          │   COMPENSATE FOR COLOR         │
          │   VARIATION IN INPUT IMAGE     │
          └───────────────────────────────┘
                         │
                         ▼                 ┌─ 740
          ┌───────────────────────────────┐
          │         OUTPUT IMAGE           │
          └───────────────────────────────┘
```

FIG. 8

TYPE OF ILLUMINATION		ILLUMINANCE OF ILLUMINATION	
SEMANTICS	EXPRESSION VALUE (KELVIN UNIT)	SEMANTICS	VALUE GAP, EXPRESSION VALUE (LUX UNIT)
INCANDESCENCE	2800	DARK	<=10
FLUORESCENT	4200	DIM	10~200
DAYLIGHT	6500	BRIGHT	200~1000
SKYLIGHT	15000	VERY BRIGHT	>=1000